Exercise 1 *Let f be a function defined as follows.*

$$f(x) = \begin{cases} -x, & x < 0 \\ x^2, & x \geq 0 \end{cases}$$

Exercise 1.1 (a) *Compute $f(1)$.*

$f(1) = \boxed{1}$

(b) *Compute $f(-1)$.*

$f(-1) = \boxed{-1}$

(c) *The calculations in parts (a) and (b) above show that f is*

Multiple Choice:

(i) *neither even nor odd.*
(ii) *even but not odd.*
(iii) *odd but not even.*
(iv) *both even and odd.*
(v) *not odd, but f may not be even.*
(vi) *not even, but f may not be odd.* ✓

Exercise 1.2 (a) *Compute $f(3)$.*

$f(3) = \boxed{9}$

(b) *Compute $f(-3)$.*

$f(-3) = \boxed{3}$

(c) *The calculations in parts (a) and (b) above show that f is*

Multiple Choice:

(i) *neither even nor odd.* ✓
(ii) *even, but not odd.*
(iii) *odd, but not even.*
(iv) *both even and odd.*
(v) *The calculations do not say anything about whether f is even or odd.*
